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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/971,975	10/04/2001	Trent D. Tholen	5096US	5703

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TRASK BRITT
P.O. BOX 2550
SALT LAKE CITY, UT 84110

EXAMINER

ADDIE, RAYMOND W

ART UNIT	PAPER NUMBER
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3671

DATE MAILED: 01/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/971,975

Applicant(s)

THOLEN ET AL.

Examiner

Raymond W. Addie

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 20-22 is/are rejected.
- 7) ☐ Claim(s) 16-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5,7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence of the specification or in an application data sheet (37 CFR 1.78(a)(2) and (a)(5)).

In this case, the provisional application is wrongly identified in the 1st paragraph of the Application. The cited provisional application is (60/238,159), which should be (60/238,169). Appropriate correction required.

Claim Objections

2. Claims 1, 8, 13, 16-22, 28, 29 are objected to because of the following informalities:

Line 5-6 recite the phrase "a second floor panel slidably associated with said first floor panel, generally along a direction of travel orthogonal to said first horizontal axis"; which should be --a 2nd floor panel pivotably associated with said 1st floor panel, generally along a direction of travel, orthogonal to said 1st horizontal axis,--.

Since the specification only provides for a slidable association in 1 dimension (extension and retraction); and further since the specification provides antecedent basis for a pivotable association about a generally horizontal axis.

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Claim 8 recites "1st horizontal axis is oriented generally orthogonal to a direction of travel of said 2nd floor panel"; should be --1st horizontal axis is oriented generally perpendicular to a direction of travel of said 2nd floor panel--. Since the 2nd floor panel is only disclosed to travel in 1 dimension, and an axis can only be measured in 1 dimension. Wherein to be "orthogonal" an element must be perpendicular to a 2nd element in 2 dimensions, such as a Z-axis being orthogonal to an X and Y-axis.

Claim 13 recites "1st horizontal axis is oriented orthogonal to said 2nd horizontal axis"; Should be --1st horizontal axis is oriented perpendicular to said 2nd horizontal axis--. Since 2 axis cannot be orthogonal to one another, only perpendicular, acute, parallel or coaxial.

Claims 31, 32 the phrase "orthogonal to a direction of passenger travel" should be --perpendicular to a direction of passenger travel--. Since the axis cited cannot be orthogonal to a single linear dimension. Anything "orthogonal" must be perpendicular to another reference in 2 dimensions.

A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim which depends from a dependent claim should not be separated by any claim which does not also depend from said dependent claim.

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It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed.

See MPEP § 608.01(n).

In this case Claims 16, 20, 28, 29 directly depend from Claim 1, which is separated by independent claims 7, 11 and 23 respectively.

Appropriate correction is required.

Note to Applicant:

While applicant may be his or her own lexicographer, a term in a claim may not be given a meaning repugnant to the usual meaning of that term. See *In re Hill*, 161 F.2d 367, 73 USPQ 482 (CCPA 1947). The term "orthogonal" in claims 1, 8, 13, 31, 32 is used by the claim to mean "a perpendicular geometric relationship in 2 dimensions," while the accepted meaning is "a 3 dimensional relationship in which an element is perpendicular to one or more elements, in a plane or other 2 dimensional area; such as the Z-axis is perpendicular to both the X and Y-axes and the X and Y axes are perpendicular to one another, creating a 3 dimensional relationship between the 3 axes."

Therefore, the phrase orthogonal is interpreted to require a perpendicular relationship, where cited in the claims.

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Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-12, 14, 23-34 are rejected under 35 U.S.C. 102(b) as being anticipated by
Stephenson et al. # 6,122,789.

Stephenson et al. discloses an aircraft engagement assembly comprising:

A frame assembly (unnumbered); see Col. 4, lines 43-46; Figs. 4, 15.

A 1st floor panel (33) pivotably associated with said frame and defining a 1st floor
surface.

See col. 3, lines 5-16, lines 53-60; col. 4, lines 7-13, lines 42-45; col. 6, lines 1-24.

A plurality of 2nd floor panels (30, 31) slidably associated with said 1st floor panel.

See col. 3-4; col. 6, lines 25-46.

Said 2nd floor panel defining an edge, which forms a portion of a perimeter of said frame
floor. Wherein the 2nd floor panels define a 2nd floor surface.

In regards to claim 2 Stephenson et al. discloses at least one side panel (32) pivotably
associated with said 1st floor panel (33), for rotation about a side of said 1st floor panel.

Said side panel defining an 3rd floor surface.

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In regards to Claims 3-6, 8, 12, 24, 25 Stephenson et al. discloses a drive structure in the form of electric actuators, limit switches and piano type hinges; to drivingly rotate and/or slide the movable floor portions (30, 31, 32, 231). See col. 6, lines 1-46.

Stephenson et al. further discloses the 1st horizontal axis is perpendicular to the direction of extension/retraction of the 2nd floor panel and that the 1st and 2nd floor panels are mechanically connected. See col. 3, cols. 5-6; Figs 6, 7.

In regards to Claims 7, 11, 14, 23, 30 Stephenson et al. discloses essentially all that is claimed, as put forth with respect to claim 1 above, and further discloses:

A 1st and 2nd structure (in the form of electric actuators, piano type hinges, at least 1 mount for the pivoting floor section, sensors and limit switches, rollers and bar type tracks) to retain and or move said 1st and 2nd floor panels relative to said frame.

See col. 6; Fig. 15. Stephenson et al. further discloses the 2nd floor panel is pivotable associated with said frame for rotation about a 2nd, generally horizontal axis, such that said 2nd floor panel is adjacent said 1st floor panel and that said 1st and 2nd axes are co-axial. See col. 4, lns 8-13, col. 6, lns 1-46; figs. 1-7.

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In regards to Claims 9, 10, 26-29, 31-34 Stephenson et al. discloses a plurality of 1st and 2nd floor panels (33, 32, 31, 30). Stephenson et al. further discloses that any of the floor panels can be interchanged, in order to create additional embodiments of the aircraft assembly. Said embodiments comprising arrangements such that said 1st and 2nd axes are perpendicular to a direction of passenger travel. See col. 4, lns 7-13; fig. 7.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13, 20-22, 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stephenson et al. '789 in view of Zhou # 6,212,724.

Stephenson et al. discloses essentially all that is claimed, to include a variety of safety barrier systems (60, 70), see figs. 7-12; but does not disclose the use of barriers in the form of pivoting floor plates. However, Zhou, as cited by the applicant, teaches an aircraft engagement assembly comprising:

An aircraft engaging cab (I) having a 1st and 2nd floor panels (P, Q) comprising: a plurality of 3rd and 4th, pivoting and slidable floor panels (103, 104)

Said floor panels being disposed along horizontal axes, which are perpendicular to one another.

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Zhou further discloses the preferred embodiment is desirable for providing a 4th floor panel (103) which can support passenger traffic embarking an aircraft, or can be folding upwardly to provide a safety barrier along at least one edge of said 3rd floor panel; and simultaneously provide an opening for receiving an aircraft hand rail, such that the 3rd floor panel can be disposed within the aircraft doorway, adjacent a top step or floor section of said aircraft. Therefore, it would have been obvious to provide the apparatus of Stephenson et al., with safety panels, as taught by Zhou, in order to protect passengers traversing an aircraft doorway.

See Zhou, col. 1, lines 45-65, col. 4, lines 27-col. 5, line 3; Figs. 3-6.

In regards to Claims 20-22, 35 Zhou teaches the 1st floor panel includes 2 opposing lateral edges, which pivotably support a side panel (103) for rotational motion about a horizontal axis perpendicular to, a 1st horizontal axis, which is coaxial to a transverse edge of said 1st floor panel (P), for providing an additional floor panel, disposed in a horizontal arrangement, or a safety plate adjacent a longitudinal side of said 3rd floor panel (104). Said additional floor panel constituting a 3rd floor surface extending from said frame to a lateral edge of said 2nd floor panel (Q) when disposed in a horizontal arrangement with said 2nd and 3rd floor panels (Q, 104). Zhou further teaches providing a drive structure (105) for rotating said 4th floor panel (103) between said horizontal and vertical positions, as well as locking structure (106) for supporting said panel (103) in a horizontal arrangement.

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Therefore, it would have been obvious to provide the apparatus of Stephenson et al., with safety panels, as taught by Zhou, in order to protect passengers traversing an aircraft doorway. See Zhou col. 4.

5. Claim 15 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Stephenson et al. # 6,122,789. Stephenson et al. discloses all that is claimed, to include the use of floor panels (31, 32) that can pivot about a horizontal axis and extend/retract in a direction parallel to the longitudinal axis of the passenger bridge, such that a movable panel (30, 31, 32) may engage the top step or floor section of an aircraft. Although Stephenson et al. discloses at least one floor panel (such as 30 in fig. 6) can extend beyond the outer periphery of the non-movable floor panel (33). Stephenson et al. does not disclose the extent of retraction of said movable floor panels (30-32). However, as clearly illustrated in Fig. 6, a plurality of floor panels are disposed in a variety of lengths in order to show the each movable panels is independently movable. Further, fig. 6 clearly shows several floor panels retracted rearwardly of the non-movable floor panel (33) to the left of the fig. Therefore, it is obvious, if not inherent that at least a portion of the movable panels (30-32) are slidable within/under the non-movable, 1st floor panel (33).

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6. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stephenson et al. # 6,122,789 in view of Mitchell et al. # 5,761,757.

Stephenson et al. discloses essentially all that is claimed, to include a plurality of pivotable and slidable floor panels, but does not disclose the specific combination of a 2nd floor panel able to slide within/under a 1st floor panel able to pivot about a frame assembly. However, Mitchell et al. teaches it is desirable to provide an aircraft passenger bridge with an aircraft interface assembly comprising: Pivotable floor section (70) able to be pivoted about a horizontal axis, at an outermost periphery of the aircraft interface, thereby forming a floor section, having a bumper for engaging the doorway of a large aircraft, typically not having stairs integrated within the aircraft door. Mitchell et al. further teaches the use of a slidable floor assembly (62), that is slidable within the interior edge of said pivotable floor section (70). The slidable floor section (62) may be retracted, enabling the pivotable floor section to be raised, such that the aircraft interface may snugly engage a commuter type aircraft having stairs and possibly handrails integrated into the aircraft doorway. Therefore, it would have been obvious to provide the aircraft passenger bridge of Stephenson et al. with pivotable and slidable floor panels, that are interconnected to maximize the use of the passenger bridge with a variety of different types of aircraft. See Mitchell et al. Col. 4-5.

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7. Claims 16-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

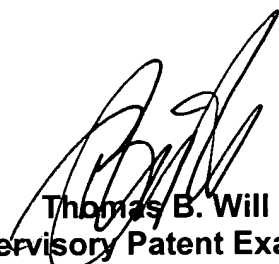
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lichti # 4,110,859 discloses a passenger bridge having floor panels rotatable about a vertical axis that is orthogonal to the direction of passenger travel. EP 1099653 A1 to Gleason discloses a ramp having a slidable and pivotable floor panel for contacting a vehicle surface or alternatively for providing a safety barrier.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Addie whose telephone number is (703) 305-0135. The examiner can normally be reached on Monday-Friday from 8:00 am to 2:00 pm, 6-8 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached on (703) 308-3870. The fax phone number for this Group is (703) 305-8623.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1113.



Thomas B. Will
Supervisory Patent Examiner
Group 3600

RWA
12/27/2002